**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 23 June 2025 |
| Team ID | LTVIP2025TMID32832 |
| Project Name | Pollen's Profiling: Automated Classification of Pollen Grains |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Registration through Form  Registration through Gmail  Registration through LinkedIN |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | Dataset Upload | Upload pollen images, Check upload status |
| FR-4 | Model and Prediction | Model training, Prediction on uploaded images, View results |
| FR-5 | Dashboard | View recent predictions, Model status, Dataset overview |
| FR-6 | Admin Control (Optional) | Manage datasets, Manage models |

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | Easy-to-use web interface for users to upload images and view results. |
| NFR-2 | **Security** | User data, images, and model files are secure. Only authorized users can access datasets. |
| NFR-3 | **Reliability** | The system provides correct predictions with high accuracy. Works without crashes. |
| NFR-4 | **Performance** | The model gives predictions quickly (within a few seconds). |
| NFR-5 | **Availability** | The system is available online 24/7 or whenever hosted locally or on the cloud. |
| NFR-6 | **Scalability** | Can handle more users, more pollen classes, and larger datasets as needed without performance loss. |